

E000P-971091-01
Date: 12/03/97

MODIFICATION REVIEW
For
BEAMLINE
PERSONNEL SAFETY SYSTEM

ARGONNE NATIONAL LABORATORY
ADVANCED PHOTON SOURCE
EXPERIMENTAL FACILITIES

E000P-971091-01

Modification Review for Beamline Personnel Safety System

PREPARED BY:

_____ Roy Emerson, Software Section Leader, APS/XFD/ISI	_____ Date
---	---------------

REVIEWED BY:

_____ George Srajer, PSS Safety Committee Chairman, APS/XFD/SRI	_____ Date
---	---------------

_____ John Stoffel, PSS Design Engineer, APS/XFD/ISI	_____ Date
--	---------------

_____ Nick Friedman, Interlock Systems Section Leader (acting), XFD/ISI	_____ Date
---	---------------

APPROVED BY:

_____ Jon Hawkins, Group Leader, APS/XFD/ISI	_____ Date
--	---------------

Modification Review for Beamline Personnel Safety System

PSS Change Request
03 December 1997

1. PSS Change

Chain A:

This change will add diagnostic measurement to the program. The measurements will be restricted to counting the number of operations of the shutters and timing separately the open and close operations. The measurements will be recorded in a separate section of the program and data areas in the Programmable Logic Controller (PLC) to isolate the logic and data from both control code and fault code. The data from the shutter measurements down stream of the front end shutters will be sent to EPICS as soon as it is practical. The Front End Equipment Protection system (FEEPS) will record and send to EPICS the measurements for the front end shutters.

Chain B:

Chain B is not affected and operates properly under this condition.

2. Reasons for the PSS Change.

It has been noted that there is no empirical data characterizing actual operating experience of the shutter operations over time. It is highly desirable to have this data to allow a determination of the normal and abnormal operating behaviors of the shutters.

3. Extent of the PSS Change

This change will affect all Chain A Beamline code written or modified on or after 01 March 1998.

4. Method of Implementation

The changes will be applied using the existing Software Change Request mechanism as defined in the Software Configuration Management Procedures document E000P-921130-01 dated 03/25/96 for the Interlock Systems and Instrumentation Group.